

WO 99/64593

PCT/US99/12906

SEQUENCE LISTING

<110> INCYTE PHARMACEUTICALS, INC.

BANDMAN, Olga

LAL, Preeti

TANG, Y. Tom

CORLEY, Neil C.

GUEGLER, Karl J.

BAUGHN, Mariah R.

PATTERSON, Chandra

<120> CELL CYCLE REGULATION PROTEINS

<130> PF-0531 PCT

<140> To Be Assigned

<141> Herewith

<150> 60/088,695

<151> 1998-06-08

<160> 35

<170> PERL Program

<210> 1

<211> 197

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 037377

<400> 1

Met	Leu	Val	Leu	Pro	Ser	Pro	Cys	Pro	Gln	Pro	Leu	Ala	Phe	Ser
1				5					10					15
Ser	Val	Glu	Thr	Met	Glu	Gly	Pro	Pro	Arg	Arg	Thr	Cys	Arg	Ser
				20					25					30
Pro	Glu	Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser
				35					40					45
Ser	Pro	Pro	Arg	Pro	Asn	His	Tyr	Leu	Leu	Ile	Asp	Thr	Gln	Gly
				50					55					60
Val	Pro	Tyr	Thr	Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro
				65					70					75
Gly	Ala	Ser	Gly	Ala	Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro
				80					85					90
Val	Cys	Ser	Arg	Val	Phe	Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His
				95					100					105
Ser	Ile	Thr	His	Ser	Glu	Val	Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys
				110					115					120
Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser	His	Leu	Ala	Arg	His	His	Ser
				125					130					135
Ile	His	Leu	Ala	Gly	Gly	Gly	Arg	Pro	His	Gly	Cys	Pro	Leu	Cys
				140					145					150

WO 99/64593

PCT/US99/12906

Pro Arg Arg Phe Arg Asp Ala Gly Glu Leu Ala Gln His Ser Arg
 155 160 165
 Val His Ser Gly Glu Arg Pro Phe Gln Cys Pro His Cys Pro Arg
 170 175 180
 Arg Phe Met Glu Gln Asn Thr Leu Gln Lys His Thr Arg Trp Lys
 185 190 195
 His Pro

<210> 2

<211> 225

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 162871

<400> 2

Met Ala Glu Gly Glu Thr Glu Ser Pro Gly Pro Lys Lys Cys Gly
 1 5 10 15
 Pro Tyr Ile Ser Ser Val Thr Ser Gln Ser Val Asn Leu Met Ile
 20 25 30
 Arg Gly Val Val Leu Phe Phe Ile Gly Val Phe Leu Ala Leu Val
 35 40 45
 Leu Asn Leu Leu Gln Ile Gln Arg Asn Val Thr Leu Phe Pro Pro
 50 55 60
 Asp Val Ile Ala Ser Ile Phe Ser Ser Ala Trp Trp Val Pro Pro
 65 70 75
 Cys Cys Gly Thr Ala Ser Ala Val Ile Gly Leu Leu Tyr Pro Cys
 80 85 90
 Ile Asp Arg His Leu Gly Glu Pro His Lys Phe Lys Arg Glu Trp
 95 100 105
 Ser Ser Val Met Arg Cys Val Ala Val Phe Val Gly Ile Asn His
 110 115 120
 Ala Ser Ala Lys Val Asp Phe Asp Asn Asn Ile Gln Leu Ser Leu
 125 130 135
 Thr Leu Ala Ala Leu Ser Ile Gly Leu Trp Trp Thr Phe Asp Arg
 140 145 150
 Ser Arg Ser Gly Phe Gly Leu Gly Val Gly Ile Ala Phe Leu Ala
 155 160 165
 Thr Val Val Thr Gln Leu Leu Val Tyr Asn Gly Val Tyr Gln Tyr
 170 175 180
 Thr Ser Pro Asp Phe Leu Tyr Val Arg Ser Trp Leu Pro Cys Ile
 185 190 195
 Phe Phe Ala Gly Gly Ile Thr Met Gly Asn Ile Gly Arg Gln Leu
 200 205 210
 Ala Met Tyr Glu Cys Lys Val Ile Ala Glu Lys Ser His Gln Glu
 215 220 225

<210> 3

<211> 236

<212> PRT

<213> Homo sapiens

WO 99/64593

PCT/US99/12906

<220>

<221> misc_feature

<223> Incyte clone 236062

<400> 3

```

Met Leu Ser Lys Gly Leu Lys Arg Lys Arg Glu Glu Glu Glu Glu
 1          5          10          15
Lys Glu Pro Leu Ala Val Asp Ser Trp Trp Leu Asp Pro Gly His
          20          25          30
Ala Ala Val Ala Gln Ala Pro Pro Ala Val Ala Ser Ser Ser Leu
          35          40          45
Phe Asp Leu Ser Val Leu Lys Leu His His Ser Leu Gln Gln Ser
          50          55          60
Glu Pro Asp Leu Arg His Leu Val Leu Val Val Asn Thr Leu Arg
          65          70          75
Arg Ile Gln Ala Ser Met Ala Pro Ala Ala Ala Leu Pro Pro Val
          80          85          90
Pro Ser Pro Pro Ala Ala Pro Ser Val Ala Asp Asn Leu Leu Ala
          95          100          105
Ser Ser Asp Ala Ala Leu Ser Ala Ser Met Ala Ser Leu Leu Glu
          110          115          120
Asp Leu Ser His Ile Glu Gly Leu Ser Gln Ala Pro Gln Pro Leu
          125          130          135
Ala Asp Glu Gly Pro Pro Gly Arg Ser Ile Gly Gly Ala Ala Pro
          140          145          150
Ser Leu Gly Ala Leu Asp Leu Leu Gly Pro Ala Thr Gly Cys Leu
          155          160          165
Leu Asp Asp Gly Leu Glu Gly Leu Phe Glu Asp Ile Asp Thr Ser
          170          175          180
Met Tyr Asp Asn Glu Leu Trp Ala Pro Ala Ser Glu Gly Leu Lys
          185          190          195
Pro Gly Pro Glu Asp Gly Pro Gly Lys Glu Glu Ala Pro Glu Leu
          200          205          210
Asp Glu Ala Glu Leu Asp Tyr Leu Met Asp Val Leu Val Gly Thr
          215          220          225
Gln Ala Leu Glu Arg Pro Pro Gly Pro Gly Arg
          230          235

```

<210> 4

<211> 351

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 1596581

<400> 4

```

Met Ile Thr Asp Ala Leu Thr Ala Ile Ala Leu Tyr Phe Ala Ile
 1          5          10          15
Gln Asp Phe Asn Lys Val Val Phe Lys Lys Gln Lys Leu Leu Leu

```

WO 99/64593

PCT/US99/12906

	20		25		30
Glu	Leu	Asp	Gln	Tyr	Ala
	35		40		45
Pro	Met	Glu	Met	Arg	Tyr
	50		55		60
Leu	Leu	Asn	Pro	Tyr	Thr
	65		70		75
Cys	Ala	Ile	Asn	Asn	Thr
	80		85		90
Ile	Lys	Gly	Ser	Ala	Phe
	95		100		105
Thr	Tyr	Gln	Ser	Leu	Tyr
	110		115		120
Leu	Tyr	Leu	Leu	Gln	Arg
	125		130		135
Lys	Ala	Phe	Trp	Ile	Phe
	140		145		150
Gly	Ser	Leu	Val	Val	Ile
	155		160		165
Ser	Trp	Asp	Phe	Ile	Pro
	170		175		180
Pro	Asp	Leu	Thr	Pro	Asn
	185		190		195
Glu	Met	Phe	Glu	His	Phe
	200		205		210
Ile	Asn	Val	Phe	Phe	Tyr
	215		220		225
Glu	His	Pro	Ile	Phe	Phe
	230		235		240
Ile	Phe	Lys	Ser	Tyr	Pro
	245		250		255
Ala	Phe	Phe	Pro	Val	Trp
	260		265		270
Ile	Phe	Val	Leu	Thr	Cys
	275		280		285
Pro	Val	Leu	Trp	His	Leu
	290		295		300
Asn	Phe	Phe	Tyr	Ala	Ile
	305		310		315
Leu	Leu	Ile	Ser	Asp	Tyr
	320		325		330
Tyr	Leu	Thr	His	Gly	Leu
	335		340		345
Ala	Met	Leu	Val	Leu	Lys
	350				

<210> 5

<211> 757

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 1853196

WO 99/64593

PCT/US99/12906

<400> 5
Met Ser Glu Asn Ser Ser Asp Ser Asp Ser Ser Cys Gly Trp Thr
1 5 10 15
Val Ile Ser His Glu Gly Ser Asp Ile Glu Met Leu Asn Ser Val
20 25 30
Thr Pro Thr Asp Ser Cys Glu Pro Ala Pro Glu Cys Ser Ser Leu
35 40 45
Glu Gln Glu Glu Leu Gln Ala Leu Gln Ile Glu Gln Gly Glu Ser
50 55 60
Ser Gln Asn Gly Thr Val Leu Met Glu Glu Thr Ala Tyr Pro Ala
65 70 75
Leu Glu Glu Thr Ser Ser Thr Ile Glu Ala Glu Glu Gln Lys Ile
80 85 90
Pro Glu Asp Ser Ile Tyr Ile Gly Thr Ala Ser Asp Asp Ser Asp
95 100 105
Ile Val Thr Leu Glu Pro Pro Lys Leu Glu Glu Ile Gly Asn Gln
110 115 120
Glu Val Val Ile Val Glu Glu Ala Gln Ser Ser Glu Asp Phe Asn
125 130 135
Met Gly Ser Ser Ser Ser Ser Gln Tyr Thr Phe Cys Gln Pro Glu
140 145 150
Thr Val Phe Ser Ser Gln Pro Ser Asp Asp Glu Ser Ser Ser Asp
155 160 165
Glu Thr Ser Asn Gln Pro Ser Pro Ala Phe Arg Arg Arg Arg Ala
170 175 180
Arg Lys Lys Thr Val Ser Ala Ser Glu Ser Glu Asp Arg Leu Val
185 190 195
Ala Glu Gln Glu Thr Glu Pro Ser Lys Glu Leu Ser Lys Arg Gln
200 205 210
Phe Ser Ser Gly Leu Asn Lys Cys Val Ile Leu Ala Leu Val Ile
215 220 225
Ala Ile Ser Met Gly Phe Gly His Phe Tyr Gly Thr Ile Gln Ile
230 235 240
Gln Lys Arg Gln Gln Leu Val Arg Lys Ile His Glu Asp Glu Leu
245 250 255
Asn Asp Met Lys Asp Tyr Leu Ser Gln Cys Gln Gln Glu Gln Glu
260 265 270
Ser Phe Ile Asp Tyr Lys Ser Leu Lys Glu Asn Leu Ala Arg Cys
275 280 285
Trp Thr Leu Thr Glu Ala Glu Lys Met Ser Phe Glu Thr Gln Lys
290 295 300
Thr Asn Leu Ala Thr Glu Asn Gln Tyr Leu Arg Val Ser Leu Glu
305 310 315
Lys Glu Glu Lys Ala Leu Ser Ser Leu Gln Glu Glu Leu Asn Lys
320 325 330
Leu Arg Glu Gln Ile Arg Ile Leu Glu Asp Lys Gly Thr Ser Thr
335 340 345
Glu Leu Val Lys Glu Asn Gln Lys Leu Lys Gln His Leu Glu Glu
350 355 360
Glu Lys Gln Lys Lys His Ser Phe Leu Ser Gln Arg Glu Thr Leu
365 370 375
Leu Thr Glu Ala Lys Met Leu Lys Arg Glu Leu Glu Arg Glu Arg
380 385 390
Leu Val Thr Thr Ala Leu Arg Gly Glu Leu Gln Gln Leu Ser Gly
395 400 405
Ser Gln Leu His Gly Lys Ser Asp Ser Pro Asn Val Tyr Thr Glu
410 415 420

WO 99/64593

PCT/US99/12906

Lys Lys Glu Ile	Ala Ile Leu Arg Glu Arg	Leu Thr Glu Leu Glu
425	430	435
Arg Lys Leu Thr	Phe Glu Gln Gln Arg Ser Asp	Leu Trp Glu Arg
440	445	450
Leu Tyr Val Glu	Ala Lys Asp Gln Asn Gly Lys	Gln Gly Thr Asp
455	460	465
Gly Lys Lys Lys	Gly Gly Arg Gly Ser His Arg	Ala Lys Asn Lys
470	475	480
Ser Lys Glu Thr	Phe Leu Gly Ser Val Lys Glu	Thr Phe Asp Ala
485	490	495
Met Lys Asn Ser	Thr Lys Glu Phe Val Arg His	His Lys Glu Lys
500	505	510
Ile Lys Gln Ala	Lys Glu Ala Val Lys Glu Asn	Leu Lys Lys Phe
515	520	525
Ser Asp Ser Val	Lys Ser Thr Phe Arg His Phe	Lys Asp Thr Thr
530	535	540
Lys Asn Ile Phe	Asp Glu Lys Gly Asn Lys Arg	Phe Gly Ala Thr
545	550	555
Lys Glu Ala Ala	Glu Lys Pro Arg Thr Val Phe	Ser Asp Tyr Leu
560	565	570
His Pro Gln Tyr	Lys Ala Pro Thr Glu Asn His	His Asn Arg Gly
575	580	585
Pro Thr Met Gln	Asn Asp Gly Arg Lys Glu Lys	Pro Val His Phe
590	595	600
Lys Glu Phe Arg	Lys Asn Thr Asn Ser Lys Lys	Cys Ser Pro Gly
605	610	615
His Asp Cys Arg	Glu Asn Ser His Ser Phe Arg	Lys Ala Cys Ser
620	625	630
Gly Val Phe Asp	Cys Ala Gln Gln Glu Ser Met	Ser Leu Phe Asn
635	640	645
Thr Val Val Asn	Pro Ile Arg Met Asp Glu Phe	Arg Gln Ile Ile
650	655	660
Gln Arg Tyr Met	Leu Lys Glu Leu Asp Thr Phe	Cys His Trp Asn
665	670	675
Glu Leu Asp Gln	Phe Ile Asn Lys Phe Phe Leu	Asn Gly Val Phe
680	685	690
Ile His Asp Gln	Lys Leu Phe Thr Asp Phe Val	Asn Asp Val Lys
695	700	705
Asp Tyr Leu Arg	Asn Met Lys Glu Tyr Glu Val	Asp Asn Asp Gly
710	715	720
Val Phe Glu Lys	Leu Asp Glu Tyr Ile Tyr Arg	His Phe Phe Gly
725	730	735
His Thr Phe Ser	Pro Pro Tyr Gly Pro Arg Ser	Val Tyr Ile Lys
740	745	750
Pro Cys His Tyr	Ser Ser Leu	
755		

<210> 6

<211> 1378

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 037377

WO 99/64593

PCT/US99/12906

<400> 6

```

ggctcttcct tgcgtgtgcg tgcacgttgg gtgctggggg gtggagaccg gatcttcctc 60
gcttgggtac tttcctctcg gtgtgtgttt ctggccggag ccgtttcgcg acggccccgg 120
cgccccgccc caaccttcct tccctagacc ctcttctctc ccttcggctt ctctctttcg 180
gccggcgccg ccagttcctg gggcacaccc agaggtcccc ttctcgccgc cgctgcaac 240
tgcgagggtg gcccggggcc gcttggagtc gcccggaact gagaggctgc tgcactgggc 300
ctcagccagc cctccggatg ctggtgctgc catccccctg ccctcagcct ctggcatttt 360
cctccgttga gaccatggag ggccctcccc gtccgacttg ccgctcccca gaacctggac 420
cttcctcctc catcggtatc ccccaggctt catctcctcc aaggcccaac cactacctgc 480
ttattgacac tcagggtgtc ccctacacag tgctgggtga cgaggagtca cagagggagc 540
cagggggccag tggggctcca ggccagaaaa agtgctacag ctgccccgtg tgctcaaggg 600
tcttcgagta catgtcctac cttcagcgac acagcatcac ccactcggag gtaaagccct 660
tcgagtgtga catctgtggg aaggcattca agcgcgccag ccacttggca cggcaccatt 720
ccattcacct ggcggtgtgt gggcgccccc acggctgccc gctctgccct cgccgcttcc 780
gggatgcggg tgagctggcc cagcacagcc ggggtgactc tggggaacgc ccgtttcagt 840
gtccacactg ccttcgccgc tttatggagc agaacacact gcagaaacac acgcgggtga 900
agcatccatg agccgggctg ccgggtgccc caggtaccac aggactttgc agggagcctg 960
gactcctgtc cagacacctg gtgagagcct gaggctgggtg ttcagggccc tggacacaga 1020
cacagagcag ccgcatctca aaggcagagc cctgcctgaa ggaggaatcc gtgagtaatc 1080
ttcaggtcct ccgtgttctg gagctgagat gggaatgagc ccctacacag aatggagtcc 1140
tctagcctaa agatatcagc tgttccatgg cagagccttg actggatgga ggtggggagt 1200
gtggtgtgta aagtctctgg cctcataaaa ggtggctgtg ggtcgtcagg aatctgcgcc 1260
atcttcctgg ggcttctgcg ctgttgttgg ggaagggacc ccagtctgc cttccacccc 1320
ccaaccaggc ctgagactga tcaaacaata aacacgtttc ccactctgaa aaaaaaaaa 1378

```

<210> 7

<211> 1207

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 162871

<400> 7

```

ggcgcgagtt gtgggagtgg aggaggaaga ggcggtaggg ggtacggggg ctgggtcccag 60
aagatggcgg aggcggggga tttctggtag gtccactttt aggacaagat gtggtaccgt 120
tgaagcgtca gtctttgatt cacagacagt tgagcttttc agctgggaag cctttccatt 180
tttttttttt ttaacggctt tctgaacctg tgaaaccatg gcagaaggag agacagagtc 240
acctgggccc aaaaagtgtg gccatatat ttcactgtgc actagccaga gtgtgaactt 300
gatgattcga ggagtagtgc tattttttat tggagtattt cttgcattag tgttaaattt 360
acttcagatt cagagaaatg tgacgctcct tccacctgat gtgattgcaa gcatcttttc 420
ttctgcatgg tgggtacccc catgctgtgg caggcttctt gctgtgattg ggttattata 480
cccctgcatt gacagacatc taggagaacc acataaattt aaaagagagt ggtccagtgt 540
aatgcgggtg ttagcagtct ttgttggtat aaatcatgcc agtgctaaag tggatttcga 600
taacaacata cagttgtctc tcacactggc tgcactatcc attggactgt ggtggacttt 660
tgatagatct agaagtgggt ttggccttgg agtaggaatt gccttcttgg caactgtggt 720
cactcaactg ctagtatata atggtgttta ccaatataca tctccagatt tcctctatgt 780
tcgttcttgg ttaccatgta tattttttgc tggaggcata acaatgggaa acattggctg 840
acaactggca atgtacgaat gtaaagtatt cgcagaaaaa tctcatcagg aatgaagaag 900
gcaaaaaata tcttttgtac agaaaagcaa gatgaaaagg atgtgaaatg gtagatatac 960
caacaaaact tcagactgta aaattgccag gatgcagttt tccccctgat tggcgtgtgt 1020
gtatatatgg aataaatata tatatacaca cacacatatt actgcaatct gtgattgctt 1080
catctgtaaa tcagttgtaa acctttacat atttgactta aataactgta agatatatat 1140
gtactacatt aaaaagtgtt gattaataga tgaaattttt aaattaattt tttaaaacat 1200

```

WO 99/64593

PCT/US99/12906

gcccata

1207

<210> 8

<211> 1192

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 236062

<400> 8

```

gtgagccgga gtcagaactg cgtctcgcga cccaggcgcg ggtttccgga ggacagccaa 60
caagcgatgc tgcgcgcgcc gtttcctgat tgggtgtggg tggetacctc ttcttctga 120
ttggccgcta gtgagcaaga tgctgagcaa ggggtctgaag cggaaacggg aggaggagga 180
ggagaaggaa cctctggcag tcgactcctg gtggctagat cctggccacg cagcgggtggc 240
acaggcaccc ccggccgtgg cctctagctc cctctttgac ctctcagtgc tcaagctcca 300
ccacagcctg cagcagagtg agccggacct gcggcacctg gtgctggctg tgaacactct 360
gcggcgcatc caggcgctcc tggcacccgc ggctgccctg ccacctgtgc ctagcccacc 420
tgcagccccc agtgtggctg acaacttact ggcaagctcg gacgctgcc tttcagcctc 480
catggccagc ctctggagg acctcagcca cattgagggc ctgagtcagg ctccccaacc 540
cttggcagac gaggggccac caggccgtag catcggggga gcagcgccca gcctgggtgc 600
cttggacctg ctggggccag ccactggctg tctactggac gatgggcttg agggcctgtt 660
tgaggatatt gacacctcta tgtatgacaa tgaactttgg gcaccagcct ctgagggcct 720
caaaccaggc cctgaggatg ggccgggcaa ggaggaagct ccggagctgg acgaggccga 780
attggactac ctcatggatg tgctgggtgg cacacaggca ctggagcgac cgcgggggccc 840
agggcgctga gccctcgtgc tgggaatggt gtctgggtatc tgaactgagc ctgctggctg 900
gaccaactgt cctcgaaaag acacagctgg ctccctagt acagagaaca gggcttgggc 960
cactttggag agacagaatc tagtccctgg caacttcaca tccgtcctcc tgtctcaggg 1020
ctggcagggg gagcctggaa ttaccccta gtgatggaat gacaggggtc ggtggggact 1080
gaattccctg gccctggggt catagcttgg gctgttccct ctctgatacg ggaagagacc 1140
ccaatcagat ttttcaaatt aaagccagtc ctgggaaatc tcaaaaaaaaa aa 1192

```

<210> 9

<211> 1631

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 1596581

<400> 9

```

cggacgcgtg ggtgctgggt gtggctgtga cagtgcgggc ggcccttggtc cgctccagtc 60
tggccgagtt catttccgag cgggtggagg tgggtgcccc actgagctct tggagagag 120
tgggtgaagg cctttcactg ttggacttgg gagtatctcc gtattctgga gcagtatttc 180
atgaaactcc attataata tacctctttc atttccctaat tgactatgct gaattgggtg 240
ttatgataac tgatgcactc actgctattg ccctgtattt tgcaatccag gacttcaata 300
aagttgtgtt taaaaagcag aaactcctcc tagaactgga ccagtatgcc ccagatgtgg 360
ccgaactcat ccggaccctt atggaaatgc gttacatccc tttgaaagtg gccctgttct 420
atctcttaaa tocttacacg attttgtctt gtgttgccaa gtctacctgt gccatcaaca 480
acaccctcat tgctttcttc attttgacta cgataaaaagg cagtgccttc ctcagtgccta 540
tttttcttgc cttagcgaca taccagtctc tgtaccact cacttggtt gtcccaggac 600
toctctatct cctccagcgg cagtacatac ctgtgaaaat gaagagcaaa gccttctgga 660

```


WO 99/64593

PCT/US99/12906

```

tcttttcttg ggagtatgcc atgatgtatg tgggaagcct agtggtaatc atttgcctct 720
ccttcttcct tctcagctct tgggatttca tccccgcagt ctatggcttt atactttctg 780
ttccagatct cactccaaac attggtcttt tctggtactt ctttgcagag atgtttgagc 840
acttcagcct cttcttttga tgtgtgtttc agatcaacgt cttcttctac accatcccc 900
tagccataaa gctaaaggag caccctatct tcttcatggt tatccagatc gctgtcatcg 960
ccatctttaa gtcctaccgg acagtggggg acgtggcgct ctacatggcc ttcttccccg 1020
tgtggaacca tctctacaga ttcctgagaa acatctttgt cctcacctgc atcatcatcg 1080
tctgttccct gctcttccct gtcctgtggc acctctggat ttatgcagga agtgccaact 1140
ctaatttctt ttatgccatc aacttgacct tcaacgttgg gcagatcctg ctcatctctg 1200
attacttcta tgcttctctg cggcgggagt actacctcac acatggcctc tacttgaccg 1260
ccaaggatgg cacagaggcc atgctcgtgc tcaagtaggc ctggctggca cagggtgca 1320
tggaacctcag ggggctgtgg ggccagaagc tgggccaagc cctccagcca gagttgccag 1380
caggcgagtg cttgggcaga agaggttcga gtccagggtc acaagtctct ggtacaaaa 1440
gggacccatg gctgactgac agcaaggcct atggggaaga actgggagct cccaacttg 1500
gacccccacc ttgtggctct gcacaccaag gagccccctc ccagacagga aggagaagag 1560
gcaggtgagc agggcttggt agattgtggc tacttaataa argttttttg ttatgaagtc 1620
taaaaaaaaa a 1631

```

<210> 10

<211> 3006

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 1853196

<400> 10

```

ttggcgccc agctgtgacc gccgccactg gggcagccag cacaatcggg cggaggtggc 60
gctgcccctt cagacctgaa agatgtctga aaattccagt gacagtgatt catctgttgg 120
ttggactgtc atcagtcagt aggggtcaga tatagaaatg ttgaattctg tgacccccac 180
tgacagctgt gagcccgccc cagaatgttc atcttttagag caagaggagc ttcaagcatt 240
gcagatagag caaggagaaa gcagccaaaa tggcacagtg cttatggaag aaactgctta 300
tccagctttg gaggaaacca gctcaacaat tgaggcagag gaacaaaaga taccgaaga 360
cagtatctat attggaactg ccagtgatga ttctgatatt gttacccttg agccacctaa 420
gttagaagaa attggaatc aagaagttgt cattgttgaa gaagcacaga gttcagaaga 480
ctttaacatg ggctcttccct cttagcagcca gtatactttc tgtcagccag aaactgtatt 540
ttcatctcag ctagtgatg atgaatcaag tagtgatgaa accagtaatc agcccagtcc 600
tgcttttaga cgacgccgtg cttagaagaa gaccgtttct gcttcagaat ctgaagaccg 660
gctagtgtgt gaacaagaaa ctgaaccttc taaggagtgt agtaaacgtc agttcagtag 720
tggctcfaat aagtgtgtta tacttgcttt ggtgattgca atcagcatgg gatttggcca 780
tttctatggc acaattcaga ttcagaagcg tcaacagtta gtcagaaaga tacatgaaga 840
tgaattgaat gatatgaagg attatctttc ccagtgtcaa caggaacaag aatcttttat 900
agattataag tcattgaaag aaaatcttgc aagggtgttg acacttactg aagcagagaa 960
gatgtccttt gaaactcaga aaacgaacct tgctacagaa aatcagtatt taagagtatc 1020
cctggagaag gaagaaaaag ccttatcctc attacaggaa gagttaaaca aactaagaga 1080
acagattaga atattggaag ataaagggac aagtactgaa ttagttaaaag aaaatcagaa 1140
acttaagcag catttggaag aggaaaaagc gaaaaaacac agctttctta gtcaaaagga 1200
gactctgttg acagaagcaa agatgctaaa gagagaactg gagagagaaac gactagtaac 1260
tacggcttta aggggggaac tccagcagtt aagtggtagt cagttacatg gcaagtacag 1320
ttctcccaat gtatatactg aaaaaaagga aatagcaatc ttacgggaaa gactactga 1380
gctggaacgg aagctaacct tcgaacagca gcgttctgat ttgtgggaaa gattgtatgt 1440
tgaggcaaaa gatcaaaatg gaaaacaagg aacagatgga aaaaagaaag ggggcagagg 1500
aagccacagg gctaaaaata agtcaaagga aacatttttg gggttcagta aggaaacatt 1560
tgatgccatg aagaattcta ccaaggagtt tgtaaggcat cataaagaga aaattaagca 1620

```

WO 99/64593

PCT/US99/12906

```

ggctaaagaa gctgtgaagg aaaatctgaa aaaattctca gattcagtta aatccacttt 1680
cagacacttt aaagatacca ccaagaatat ctttgatgaa aagggttaata aaagatttgg 1740
tgctacaaaa gaagcagctg aaaaaccaag aacagttttt agtgactatt tacatccaca 1800
gtataaggca cctacagaaa accatcataa tagaggccct actatgcaa atgatggaag 1860
gaaagaaaag ccagttcact ttaaagaatt cagaaaaaat acaaattcaa agaaatgcag 1920
tcctgggcat gattgtagag aaaattctca ttctttcaga aaggcttgtt ctggtgtatt 1980
tgattgtgct caacaagagt ccatgagcct ttttaacaca gtggtgaatc ctataaggat 2040
ggatgaattt agacagataa ttcaaaggta catgttaaaa gaactggata ctttttgtca 2100
ctggaacgaa cttgatcagt tcatcaataa gtttttccta aacggtgtct ttatacatga 2160
tcagaagctc ttcactgact ttgttaatga tgtaaagat tatcttagaa acatgaagga 2220
atatgaagta gataatgatg gagtatttga gaagttggat gaatatatat atagacactt 2280
ctttggtcac actttttccc ctccatattg acccaggtcg gtttacataa aaccgtgtca 2340
ttacagtagt ttgtaacatt ttagatttgg atagcatttt tatgatttga tgagtttctt 2400
gtaaggttac cgtttctaag agttgtgctt tatggccact gagagaattc agaataaatt 2460
gaaagatgga gtctaaaaat tattagctgt taaaaatgga acatttcatt ataacgtgat 2520
cactttgact tgagcaaatg gtttaatttt tatcttaaaa atcagttaag aatatataaa 2580
atcctacttt ggccaagttt gtttcttttc attatagttt atatgaaaag atcaccttaa 2640
gtgaaattat tttcctttta tcttttatgt atttattcac ttttggaagc taggaatgag 2700
caacacaaat tttactctga agtcagaaga gtcataatat aataattcta atgtcccacc 2760
tattttcact tgccattcc atgtaccagc ttagttatga tacttagtca cataattatc 2820
tttgataaag gtagaggcac aaagaggcaa actaagcaag tcaaattcta atgtgtgtac 2880
ttcataataa ttttttatcc attttcatct ttatattctg taacatgaaa cttacctaata 2940
cttcaaagt tagcttcatt ttttaccttt gaaatactta atctttctga ataaatataa 3000
tgtgta                                     3006

```

<210> 11

<211> 684

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 269, 285, 295, 312, 366, 375, 378, 397, 406, 428, 495, 501, 503

<221> unsure

<222> 586, 592, 610, 613, 643

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 108390F1

<400> 11

```

cagtatatac attgggagaa tctgacttgc catgtaactg actaccactt aactgctgga 60
gttccccctt taaagccgta gttactagtc gttctctctc cagttctctc tttagcatct 120
ttgcttctgt caacagagtc tccctttgac taagaaagct gtgttttttc tgcttttctt 180
cttccaaatg ctgcttaagt ttctgatttt cttaaactaa ttcagtactt gtccctttat 240
cttccaatat tctaactctgt tctcttagnt tgtttaactc ttcnngtaat gaggntaagg 300
ctttttcttc cntctccagg gatactctta aatactgatt ttctgtagca aggttcgttt 360
ctgagnttca aaggncanct tctctgcttc agtaagnctc caacancttg caagatttct 420
ttcaatgnct tataatctat aaaagttctt gttcccgttg acacggggaa ggtaatcctc 480
atatcatcaa ttcancttca ngnatctttc tgactaactg ttgacgggtc tgaatctgaa 540
tgtgccatag gaatggccaa atcccatgct gattgcaatc accaangcaa gnataacaca 600
cttattgggn ccnctactga actgacgggt actcaactcc ttnggagggg cagttcttgt 660
tcagcaacta gccggtcttc agat                                     684

```

WO 99/64593

PCT/US99/12906

<210> 12
 <211> 416
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte clone 1211009R1

<400> 12
 aagaattcta ccaaggagtt tgtaaggcat cataaagaga aaattaagca ggctaaagaa 60
 gctgtgaagg aaaatctgaa aaaattctca gattcagtta aatccacttt cagacacttt 120
 aaagatacca ccaagaatat ctttgatgaa aagggttaata aaagatttgg tgctacaaaa 180
 gaagcagctg aaaaaccaag aacagttttt agtgactatt tacatccaca gtataaggca 240
 cctacagaaa accatcataa tagaggccct actatgcaaa atgatggaag gaaagaaaag 300
 ccagttcact ttaaagaatt cagaaaaaat acaaattcaa agaaatgcag tcctgggcat 360
 gattgtagag aaaattctca ttctttcaga aaggcttggt ctggtgtatt tgattg 416

<210> 13
 <211> 609
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 25, 152, 166, 169, 173, 174, 180, 183, 186, 192, 193, 198, 200
 <221> unsure
 <222> 205, 220, 230, 233, 236, 243, 246, 251, 285, 307, 309, 310, 317
 <221> unsure
 <222> 319, 329, 344, 345, 377, 475, 485, 556, 573, 583, 594
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 1211009T1

<400> 13
 aagaacatta tatttattca gaaanattaa gtatttcaaa ggtaaaaaat gaagctaaca 60
 tttgaagatt aggtaagttt catgttacag aatataaaga tgaaaatgga taaaaaatta 120
 ttatgaagta cacacattag aatttgactt gnttagtttg cctctntgng ccnntacctn 180
 tancanaggt anntatgngn ctaantatca taactaagcn ggtacatggn atnganaagt 240
 ganaanaggt nggacattag aaattattat atatgagctc ttctnacttc agagtaaaat 300
 ttgtgtngnn cattccnanc ttccaaaant gaataaatac atannagatt aaaggaaaat 360
 aatttcactt aagggtgntct tttcatataa actataatga gaagaaacaa acttggccaa 420
 agtaggattt tatatatctt taactgattt ttaagataga aaattaaacc atttnctcaa 480
 gtcanaagtga tcacgttata atgaaatggt ccatttgtaa cagctaataa tttttagact 540
 ccattcttca atttantctg aattctctca gtngccataa agncaactct tagnaacggt 600
 accttcaag 609

<210> 14
 <211> 189
 <212> DNA

WO 99/64593

PCT/US99/12906

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte clone 1352052H1

<400> 14

```

cttcacatcc gtcctcctgt ctcagggctg gcagggggag cctggaatta cccctagtg 60
atggaatgac agggctctgtt ggggactgaa ttccctggcc ctgggggtcat agcttgggct 120
gttccttctc tgatacggga agagacccca atcagatttt tcaaattaaa gccagtcctg 180
ggaaatctc 189

```

<210> 15

<211> 473

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 34, 59, 60, 134, 168, 311, 314, 344, 347, 354, 364, 391, 393, 401

<221> unsure

<222> 407, 413, 416, 426, 445, 446, 447, 453, 454, 459, 471

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 1391767F1

<400> 15

```

gaaaaaaaaagg aaatagcaat cttacgggaa agantcactg agctggaacg gaagctaann 60
ttcgaacagc agcgttctga tttgtgggaa agattgtatg ttgaggcaaa agatcaaaaat 120
ggaaaacaag gaanagatgg aaaaaagaaa gggggcagag gaagccanag ggctaaaaat 180
aagtcaaagg aaacattttt gggttcagtt aaggaaacat ttgatgccat gaagaattct 240
accaaggagt ttgtaaggca tcataaagag aaaattaagc aggctaaaga agctgtgaag 300
gaaaatctga naanattctc agattcagtt aaatccactt tccnggnact ttanagtacc 360
cccnagggtta tctttgatga aaagggtaat nanagtttgg ngctacnaaa gangcnagct 420
gaaaanccag gacagttttt agggnnntat tgnnatccnc agtataaggc ncc 473

```

<210> 16

<211> 529

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 119, 501

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 1477338F1

WO 99/64593

PCT/US99/12906

```

<400> 16
ccccagatgt ggccgaactc atccggaccc ctatggaaat gcgttacatc cctttgaaag 60
tggccctgtt ctatctctta aatccttaca cgattttgtc ttgtgttgcc aagtctacnt 120
gtgccatcaa caacaccctc attgctttct tcattttgac tacgataaaa ggcagtgcctt 180
tcctcagtg c tatttttctt gccttagcga cataccagtc tctgtaccca ctcaccttgt 240
ttgtcccagg actcctctat ctctccagc ggcagtacat acctgtgaaa atgaagagca 300
aagccttctg gatcttttct tgggagtatg ccatgatgta tgtgggaagc ctagtggtaa 360
tcatttgctt ctcttcttct cttctcagct cttgggattt catccccgca gtctatggct 420
ttatactttc tgttcagat ctcactccaa acattgggtt tttctggtag ttctttgcag 480
agatgtttga gcacttcagc ntcttctttg tatgtgtgtt cagatcaac 529

```

```

<210> 17
<211> 581
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> 372, 374, 445
<223> a or g or c or t, unknown, or other

```

```

<220>
<221> misc_feature
<223> Incyte clone 1520634F1

```

```

<400> 17
gccatcccc tgccctcagc ctctggcatt ttctctcggt gagaccatgg agggccctcc 60
ccgtcggact tgccgctccc cagaacctgg accttctctc tccatcggtat cccccaggc 120
ttcatctcct ccaaggccca accactacct gcttattgac actcagggtg tccccacac 180
agtgtctgtg gacgaggagt cacagaggga gccaggggccc agtggggctc caggccagaa 240
aaagtgttac agctgccccg tgtgtcaag ggtcttcgag tacatgtcct accttcagcg 300
acacagcatc acccactcgg aggtaaagcc ctctcagtggt gacatctgtg ggaaggcatt 360
caagcgcgcc ancnacttgg cacggcacca ttccattcac ctggcggtg gtggcgggc 420
ccacggtctg ccgctctgcc ctgcgcgttc cgggatgcgg gtgagctggc ccagcacagc 480
cgggtgcact ctggggaacg cccgtttcag tgtcacactg cctcgccgtt tatggagaga 540
acacactgca gaaacacacg ggtggaagca tccatgagcg g 581

```

```

<210> 18
<211> 637
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> 462, 485, 510, 514, 550, 562, 602, 617, 622, 625, 629, 636
<223> a or g or c or t, unknown, or other

```

```

<220>
<221> misc_feature
<223> Incyte clone 1525569F6

```

```

<400> 18
cagtaatcag ccagtcctg ccttttagacg acgccgtgct aggaagaaga ccgtttctgc 60

```

WO 99/64593

PCT/US99/12906

```

ttcagaatct gaagaccggc tagttgctga acaagaaaact gaaccttcta aggagttgag 120
taaacgtcag ttcagtagtg gtctcaataa gtgtgttata cttgcttttg tgattgcaat 180
cagcatggga tttggccatt tctatggcac aattcagatt cagaagcgtc aacagttagt 240
cagaaaagata catgaagatg aattgaatga tatgaaggat tatctttccc agtgtcaaca 300
ggaacaagaa tcttttatag attataagtc attgaaagaa aatcttgcaa ggtgttggac 360
acttactgaa gcagagaaga tgcctttga aactcagaaa acgaaccttg ctaccagaaa 420
atcagtattt aagagtatcc ttggagaagg aagaaaaagc cntatcctca ttaccaggga 480
agagntaaac aaacttaaga ggaccagttn gganattgga agataaaggg gacaagtact 540
gaattagttn aaggaaaatc cngaaaactt aagcagcctt tggaagaggg aaagccggaa 600
anacaccagc tttcctnagt cnaangggng accctnt 637

```

<210> 19
 <211> 187
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 13, 19, 21
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 15547.75H1

```

<400> 19
gggcggagtt gtnggagtn nggaggaaga ggcggtaggg ggtacggggg ctgggtcccag 60
aagatggcgg aggcggggga tttctggtag gtcctacttt aggacaagat gtggtaccgt 120
tgaagcgtca gtctttgatt cacagacagt tgagcttttc agctgggaag cctttccatt 180
ttttttt 187

```

<210> 20
 <211> 499
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 406, 435
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 1596581F6

```

<400> 20
aaaaagcaga aactcctcct agaactggac cagtatgccc cagatgtggc cgaactcatc 60
cggaccccta tggaaatgcg ttacatccct ttgaaagtgg ccctgttcta tctcttaaatt 120
ccttacacga ttttgtcttg tggtgccaag tctacctgtg ccatcaacaa caccctcatt 180
gctttcttca ttttgactac gataaaaggc agtgctttcc tcagtgtat ttttcttgcc 240
ttagcgacat accagtctct gtacccactc acctgtgttg tcccaggact cctctatctc 300

```

WO 99/64593

PCT/US99/12906

```
ctccagcggc agtacatacc tgtgaaaatg aagagcaaag ccttctggat cttttcttgg 360
gagtatgcca tgatgtatgt gggaagccta gtggtaatca ttgtcntctc cttcttcctt 420
ctcagctctt ggganttcac ccccgagtc taatggctta tactttctgt tccagatctc 480
atccaaacat tgggtcttt                                     499
```

<210> 21

<211> 287

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 122, 144, 266, 273

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 1596581T1

<400> 21

```
ggcttgcccc agcttctggc cccacagccc cctgaggtec atgcagccct gtgccagcca 60
ggcctacttg agcacgagca tggcctctgt gccatccttg gcggtcaagt agaggccatg 120
tntgaggtag tactccccgc gcangaaggc atagaagtaa tcagagatga gcaggatctg 180
cccaacgttg aaggtcagtg tgatggcata aaagaaatta gagttggcac ttcctgcata 240
aatccagagg tgccacagga caggggnagaa cangggacag acgattt                287
```

<210> 22

<211> 579

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 22, 25, 32, 106, 123, 126, 135, 208, 216, 219, 234, 236, 263, 271

<221> unsure

<222> 282, 287, 292, 358, 360, 363, 365, 379, 412, 441, 452, 459, 483

<221> unsure

<222> 485, 499, 500

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 162871X4

<400> 22

```
ctaaagaaga gcggtagggg gncnnggggc tngtcccaga aagtatggcg gaggcggggg 60
atttctggta ggtcctactt taggacaaga tgtggtaccg ttgaancgac agtctttgat 120
tcncanacag ttganccttt cagctgggaa gcctttccat tttttttttt aacggctttc 180
tgaacctatg aaacctatggc aaaagganaa acaaantcnc ctgggcccaa aaantntggc 240
ccatatattt catctgtcac tanccaaatt ntgaacttga tnattcnagg antattgcta 300
ttttttattg gagtatttct tgcattagtg ttaaatttac ttcaaattca aaaaaatntn 360
acnncctttc cacctgatnt gattgcaagc atcttttctt ctgcatgctg tnattggggt 420
attatacccc tgcattaaca nacatctagg anaaccacnt aaatttaaaa aaaagtgggtc 480
```

WO 99/64593

PCT/US99/12906

cantntaatg cgggtgtgtnn cagtctttgt tggataaat catgccagtg ctaaagtgga 540
 ttctgataac aacatacagt tgtctctcac actggcgca 579

<210> 23
 <211> 250
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 8, 17, 24, 27, 33, 36, 43, 246
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 162871X92

<400> 23
 ggaaaggnca aggggaanggg gtanggnccg tgntcnaaga aantggcgga ggcgggggat 60
 ttctgctgtg attgggttat tatacccctg cattgacaga catctaggag aaccacataa 120
 atttaaaaga gagcgggtcca gtgtaatgcg gtgtgtagca gtctttgttg gtataaatca 180
 tgccagtgc aaagtggatt tcgataacaa catacagttg tctctcacac tggctgcact 240
 atcttnaaaa 250

<210> 24
 <211> 250
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 8
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 1658067H1

<400> 24
 cgacagtngg ggacgtggcg ctctacatgg ccttcttccc cgtgtggaac catctctaca 60
 gattcctgag aaacatcttt gtcctcacct gcatcatcat cgtctgttcc ctgctcttcc 120
 ctgtcctgtg gcacctctgg atttatgcag gaagtgccaa ctctaatttc ttttatgcc 180
 tcacactgac cttcaacgtt gggcagatcc tgctcatctc tgattacttc tatgccttcc 240
 tgcggcggga 250

<210> 25
 <211> 736
 <212> DNA
 <213> Homo sapiens

<220>

WO 99/64593

PCT/US99/12906

<221> unsure
 <222> 419, 435, 453, 462, 463, 471, 476, 513, 516, 563, 585, 586, 597
 <221> unsure
 <222> 611, 618, 652, 661, 680, 684, 685, 692, 693, 701, 714, 725, 731
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 1706512F6

<400> 25
 atcagaagct cttcactgac tttgttaatg atgttaaaga ttatcttaga aacatgaagg 60
 aatatgaagt agataatgat ggagtatttg agaagttgga tgaatatata tatagacact 120
 tcttttggtca cactttttcc cctccatattg gacccagggtc ggtttacata aaaccgtgtc 180
 attacagtag tttgtaacat ttgtagattg gatagcattt ttatgatttg atgagtttct 240
 tgtaagggtta ccgttttctaa gagttgtgct ttatgggcac tgagagaatt ccagaataaa 300
 ttgaaagatg ggagtcctaa aaatttaatt agccgggttac caaatgggga ccttttccat 360
 tagtaacggg gattccacct ttggaccttt gagggcaaat gggtttaaat ttttttaanc 420
 ccttaaaaaa atccnggttt aaaggaatta ttnttaaaga annccccacc nttttngggc 480
 ccaagggtttt ggttttccct ttttccattt aanaanggtt ttaataatgg aaaaaaggat 540
 tccacccttt aaaggtggga aantttaatt ttttccccct taaannccct ttttaanggg 600
 aattttaaatt ncccccttnt gggaagccca aggggaatgga ggcccacccc cnaattttta 660
 nccccggaag gtccggaagn ggcnnccctat annaataatt nccaaagggtc cccncccaat 720
 tttcnctgg ncccat 736

<210> 26
 <211> 611
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 213, 223, 369, 406, 423, 469, 475, 490, 494, 498, 524, 548, 570
 <221> unsure
 <222> 574, 582, 584, 594, 597, 605, 607
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 1722946F6

<400> 26
 attggcgccc gagctgtgac cgccgccact ggggcagcca gcacaatcgg gcggagggtgg 60
 cgctgcccct tcagacctga aagatgtctg aaaattccag tgacagtgat tcatcttgtg 120
 gttggactgt catcagtcac gaggggtcag atatagaaat gttgaattct gtgaccccca 180
 ctgacagctg tgagcccgcc ccagaatggt canctttaga gcnagaggag cttcaagcat 240
 tgcagataga gcaaggagaa tgcagccaaa atggcacagt gcttatggaa gaaactgctt 300
 atccagcttt ggaggaaacc agctcaacaa ttgaggcaga ggaacaaaag ataccggaag 360
 acagtatcna tattggaact gccagtggtg attctgatat tgttanccct tgagccacta 420
 agnttagaag gaattgggga tccaagaagt tgtcattgtt gaagaaagnc caagntccgg 480
 agacttttan catnggntc ttctcttagc agccagtata cttntctgtt cagcccagaa 540
 aactggantt tcatcttcag cctaatagacn gtgnaatcaa gntngtgatg gaanccngtt 600
 attcngnccc c 611

WO 99/64593

PCT/US99/12906

<210> 27
 <211> 592
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 94, 104, 149, 167, 215, 226, 232, 275, 298, 301, 312, 333, 362
 <221> unsure
 <222> 364, 367, 376, 391, 392, 395, 412, 415, 419, 429, 435, 443, 449
 <221> unsure
 <222> 452, 462, 463, 464, 466, 467, 468, 470, 476, 485, 489, 492, 502
 <221> unsure
 <222> 514, 529, 533, 541, 550, 557, 558, 567, 572, 574, 577, 580
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 1853196F6

<400> 27
 ctttcagaaa ggttgtttct ggtgtatttg attgtgctca acaagagtcc atgagccttt 60
 ttaacacagt ggtgaatcct ataaggatgg atgnatttag acanataatt caaagggtaca 120
 tgttaaaaga actggatact ttttgtcant ggaacgaact tgatcanttc atcaataagt 180
 ttttcctaaa cgggtgtcttt atacatgac agaancctctt cactgncttt gntaatgatg 240
 ttaaagatta tcttagaaac atgaaggata tgaantagat aatgatggag tattttgcnaa 300
 nttggatgga tntatatata gacacttctt tgntcacact ttttccccctc catatgggcc 360
 cngntcngtt tacatnaaac cgtgtcttac nntantttgt aacatttgta gntgnatanc 420
 atttttaant ttgangagtt tcntgtaang tnacggttcc annngnnntn ctttanagcc 480
 accanagana antcggataa antgaaagta gggntccaaa attattaant gtnccaatag 540
 nactttcctn ataaagnngt caccttngct tnanccnatn ggtttaattt tt 592

<210> 28
 <211> 447
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte clone 2238411F6

<400> 28
 tttgggcacc agcctctgag ggcctcaaac caggccctga ggatgggccc ggcaaggagg 60
 aagctccgga gctggacgag gccgaattgg actacctcat ggatgtgctg gtgggcacac 120
 aggcactgga gcgaccgccg gggccagggc gctgagccct cgtgctggaa tggttgctctg 180
 gtatctgaac tgagcctgct ggctggacca actgtcctcg aaaagacaca gctggccttc 240
 ctagtacaga gaacagggct tggggcactt tggagagaca gaatctagtc ctgggcaact 300
 tcacatccgt cctcctgtct cagggtggc agggggagcc tgggaattacc ccctagtgtat 360
 ggaatgacag ggtctggtgg ggactgaatt ccctggccct ggggtcatag cttgggctgt 420
 tccttctctg atacgggaag agacccc 447

<210> 29
 <211> 247

WO 99/64593

PCT/US99/12906

<212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 234
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 2312928H1

<400> 29
 tgctgggtggt ggctgtgaca gtgcggggcgg ccttggttccg ctccagtctg gccgagttca 60
 tttccgagcg ggtggaggtg gtgtccccac tgagctcttg gaagagagtg gttgaaggcc 120
 tttcactgtt ggacttgga gtatctccgt attctggagc agtatttcat gaaactccat 180
 taataatata cctctttcat ttcctaattg actatgctga attggtgttt atgntaactg 240
 atgcact 247

<210> 30
 <211> 190
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 162, 163
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 3015795H1

<400> 30
 acttcacatc cgtcctcctg tctcagggct ggcaggggga gcctggaatt accccctagt 60
 gatggaatga caggtctctg tggggactga attccctggc cctgggggtca tagcttgggc 120
 tggtccttct ctgatacggg aagagacccc aatcagattt tnnaaattaa agccagtcct 180
 gggaaatctc 190

<210> 31
 <211> 253
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 121
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature

WO 99/64593

PCT/US99/12906

<223> Incyte clone 3231214H1

<400> 31

```

gtttcagatc aacgtcttct tctacaccat ccccttagcc ataaagctaa aggagcaccc 60
catcttcttc atgtttatcc agatcgctgt catcgccatc ttttaagtcct acccgacagt 120
nggggacgtg gcgctctaca tggccttctt ccccggtgtg aaccatctct acagattcct 180
gagaaacatc tttgtctcca cctgcatcat catcgctctg tccctggctc ttcctgtctc 240
tgtggcacct ctg 253

```

<210> 32

<211> 273

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 88

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 3985439H1

<400> 32

```

gtcttccttg cgtgtgcgtg cacgttgggt gctgggggggt ggagaccgga tctatcctcg 60
cttgggtact ttctctctcg tgtgtgntc tggcgggagc cgtttcgga cgccccgggc 120
gccccgcccc aaccttcctt cctagaccc tctctctctc ctctggttc tctctttcgg 180
ccggcgccgc cagttcctgg ggcacacca gaggtccct tctcgccgc gctgcaact 240
gcgagggtag cccggggcgc cttggagtgc ccc 273

```

<210> 33

<211> 618

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 190, 336, 351, 413, 420, 423, 432, 441, 449, 454, 462, 510, 520

<221> unsure

<222> 524, 530, 552, 555, 557, 560, 561, 569, 574, 584, 585, 594, 596

<221> unsure

<222> 611, 614

<223> a or g or c or t, unknown, or other

<220>

<221> misc_feature

<223> Incyte clone 403002R6

<400> 33

```

tgctggtgga cgaggagtca cagagggagc caggggccag tggggctcca ggccagaaaa 60
agtgtctacg ctgccccgtg tgctcaaggg tcttcagagta catgtctctac cttcagcgac 120

```

WO 99/64593

PCT/US99/12906

```

acagcatcac ccactcggag gttaaagccct tcgagtgtga catctgtggg aaggcattca 180
agcgcgccan ccacttggca cggcaccatt ccattcacct ggcggttggg gggcgcccc 240
acggctgccc gctctgccct cgcgcttcc gggatgcggg tgagtggccc aagcacagcc 300
gggtgcactc tggggaacgc ccgtttcagt gtcaanactg ctttcgccgg nttaaatgga 360
gcagaacaca attgcagaaa acaacaccgc ggttggaaaag catcccattg aanccggggg 420
ttncggggtt tncccaagg ntaccaaang gaantttttc anaggggaac cttgaaatt 480
ccctgttcca aaaaaacctt ggtaaaaaan ccctaaaggg tggntttttt aggggccttg 540
gaaaaacagg ancananggn nagggggant ttnaaaggg aaannccctt gccnanaagg 600
gggaatcccc naantaat                                     618

```

<210> 34
 <211> 297
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte clone 510407R6

```

<400> 34
tgagtaatct tcaggctctc cgtgttctgg agctgagatg ggaatgagcc cctacacaga 60
atggagtcct ctaccctaaa gatatcagct gttccatggc agagccttga ctggatggag 120
gtggggagtg tgggtgtgaa agtctctggc ctcataaaag gtggctgtgg gtcgtcagga 180
atctgcgcca tcttcctggg gcttctgcgc tggtgttggg gaagggaccc cagtcttgcc 240
ttccaccccc caaccaggcc tgagactgat caaacaataa acacgtttcc cactctg 297

```

<210> 35
 <211> 239
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 91
 <223> a or g or c or t, unknown, or other

<220>
 <221> misc_feature
 <223> Incyte clone 3590729H1

```

<400> 35
ggcgagtgtc tgggcagaag aggttcgagt ccagggtcac aagtctctgg taccaaaaagg 60
gacccatggc tgactgacag caaggcctat ngggaagaac tgggagctcc ccaacttggg 120
ccccacctt gtggctctgc acaccaagga gccccctccc agacaggaag gagaagaggc 180
aggtgagcag ggcttgtag attgtggcta cttaataaat gttttttgtt atgaagtct 239

```